

**UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF NEW YORK**

HONG KONG UCLOUDLINK NETWORK  
TECHNOLOGY LIMITED and  
UCLOUDLINK (AMERICA), LTD.,

Plaintiffs,

**Civil Action No. 1:20-cv-03399-JSR**

v.

SIMO HOLDINGS INC.,

Defendant.

**MEMORANDUM OF LAW IN SUPPORT OF  
PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT OF NO INFRINGEMENT**

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## I. INTRODUCTION

This Court previously said it was “persuaded that uCloudlink’s<sup>1</sup> redesigned products no longer infringe” U.S. Pat. No. 9,736,689 (the “’689 patent”). *See SIMO Holdings Inc. v. Hong Kong uCloudlink Network Technology, Ltd. and Ucloudlink (America) Ltd.*, Case No. 1:18-cv-05427, Docket 299 (S.D.N.Y. Dec. 11, 2019) (hereinafter, “*SIMO I*”). Specifically, the Court found that uCloudlink’s redesign products no longer practiced the claim limitation requiring a “data communication link” that is “distinct from the local cellular communication network” because those products force the use of the same cellular network both for obtaining a cloud subscriber identity module (“SIM”) and for general internet connectivity. *See id.* at 3.

While this finding in *SIMO I* was made in the context of determining whether the uCloudlink redesign products should be enjoined, the same analysis supports granting summary judgment of no infringement. The uCloudlink redesign products still use the same network for authentication and for general connectivity, which means they will never satisfy the ’689 patent’s “distinct” limitations. Importantly, all of the claims of the ’689 patent include a version of the “distinct” limitation, which means the uCloudlink redesign products cannot infringe any claim. Defendant SIMO Holdings Inc. (“SIMO”) added these “distinct” limitations during prosecution to overcome prior art rejections, which means SIMO cannot use the “doctrine of equivalents” to expand these limitations. Because there is no genuine dispute regarding how the redesign devices work, and because the claims do not cover them, summary judgment of no infringement is appropriate.

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<sup>1</sup> Throughout this brief, “uCloudlink” refers collectively to Plaintiffs Hong Kong uCloudlink Network Technology Ltd. and Ucloudlink (America) Ltd.

## II. BACKGROUND

### A. The Accused Devices

uCloudlink manufactures portable Wi-Fi hotspots and mobile phones that are designed to assist travelers who might otherwise need to roam on foreign wireless networks.

Cellular carriers, such as AT&T or T-Mobile, typically operate on a local or national level. When traveling internationally, a cellular device can “roam” on a foreign wireless carrier’s network. The fees associated with such roaming, however, can be exorbitant. [*See* Ex. 1 (’689 patent) at 2:41-42 (“roaming fees, especially international fees, can be costly”).]

While there are many solutions to this problem, uCloudlink’s approach is as follows. uCloudlink sells a device that contains a “subscriber identity module” or “SIM” card (called a “seed SIM”) that is capable of connecting to a local cellular network on a roaming basis. [*SIMO I*, Dkt. 278, ¶¶ 6-7, 11.] Once connected to that network, the device establishes a connection with uCloudlink’s back-end servers, where uCloudlink has a bank of physical and virtual SIM cards that it can loan to its devices. These remote SIM cards are referred to as “cloud SIMs.” [*Id.*, ¶ 8.]

uCloudlink maintains cloud SIMs for various networks, and uCloudlink can send an image of a cloud SIM to a mobile device or hotspot that allows that device to connect to the local cellular network. [*Id.*] For example, uCloudlink can send an image of an AT&T SIM card to a device that would allow that device to access AT&T’s network. [*Id.*, ¶ 12.] The end result is that the user can use the cellular network without incurring roaming charges.

The products at issue here are the GlocalMe G2, G3, G4, G4P, U2 and U3 WiFi hotspot devices, as well as the S1, S20i and P3 mobile phones (collectively, the “redesign devices”). [Plaintiffs’ Rule 56 Statement of Material Facts (“SOMF”), ¶ 1.]

## B. The Prior Patent Case (*SIMO I*)

On August 20, 2018, SIMO filed an amended complaint accusing uCloudlink of infringing the '689 patent. *See SIMO I*, Docket 20. Claim 8 was the only asserted independent claim, and it requires, among other limitations, “establishing a local authentication information request in response to a local authentication request by a local cellular communication network, wherein the local authentication information request comprises information regarding the local authentication request for local authentication information received by the foreign wireless communication client or the extension unit from the local cellular communication network, **and wherein the data communication link is distinct from the local cellular communication network.**” [Ex. 1, Claim 8 (emphasis added).] This Court construed the bolded limitation to mean “the data communication link is **not using** the local cellular communication network.” *See SIMO I*, Docket 64 at 27 (emphasis added). The Court construed “data communication link” as “communication link capable of transmitting data.” *Id.* at 23.

On March 8, 2019, SIMO filed a motion for summary judgment of infringement. As part of that motion, a dispute arose over whether the accused products satisfied the “distinct” limitation. This Court noted that “the dispute regarding this limitation is whether the local cellular network is carrier-specific [as SIMO argued] or whether there is only one network in a given area, with multiple carriers operating on it,” as uCloudlink proposed. *SIMO I*, Docket 163 at 25. SIMO argued that “there are separate ‘local cellular communication networks’ operated by different cellular carriers in the United States (AT&T, Verizon, etc.).” *Id.* The Court agreed, finding that the “local wireless communication network” is, “in the terminology of the patent, carrier-specific.” *Id.* at 26. In reaching its conclusion, the Court noted that “the patent explicitly associates a ‘local wireless communication network with a particular carrier.’” *Id.* at 25. The

Court concluded that “[i]t would make little sense...to interpret ‘local cellular communication network’ to be carrier-agnostic.” *Id.* at 26.

In finding that uCloudlink’s accused devices in *SIMO I* infringed, the Court explained that “to meet this limitation, it must be the case that the local cellular network used by the seed SIM is different from the local cellular network used by the Cloud SIM.” *Id.* at 28. It found that the accused products will “sometimes, but not always” use different networks. *Id.* Specifically, the Court found that there were occasions where in the accused products, the “seed SIM and Cloud SIM might connect to different service providers.” *Id.* “For example, the seed SIM might connect (on a roaming basis) to AT&T’s network, while the Cloud SIM is subscribed to, and connects to, Verizon’s. In that scenario, the relevant ‘local cellular communication network’ – i.e. the one that sent the local authentication request to the Cloud SIM – is Verizon’s, and because the data communication link – established by the seed SIM using AT&T’s network – is distinct from Verizon’s network, the claim limitation is satisfied.” *Id.* Because “the Accused Products meet this limitation at least some of the time,” the Court found that they infringed claim 8. *Id.*

### **C. uCloudlink’s Redesign**

Following the Court’s summary judgment decision, uCloudlink began redesigning its products. [*SIMO I*, Dkt. 278, ¶ 4.] At a high level, the redesign works by forcing devices operating in the United States to use the same cellular network both for retrieving the cloud SIM and for general Internet connectivity. [*Id.*, ¶ 5.] Thus devices operating in the United States never have a data communication link that is “distinct from” the local cellular communication network.

As noted above, the accused devices use a seed SIM to roam on a cellular network of a local wireless carrier, such as AT&T. The devices use that connection to obtain a cloud SIM

from uCloudlink's backend servers. The devices then use the cloud SIM for general Internet connectivity. The redesign software makes note of which network the seed SIM used to request the cloud SIM. [*Id.*, ¶ 9.] For example, if the seed SIM connected to AT&T's network (on a roaming basis) to request a cloud SIM, the redesigned back-end server will note this, and will only send a cloud SIM that is compatible AT&T's network. [*Id.*, ¶ 12]

The redesign software on the end-user device forces the device to use the same network (in this example, AT&T) for both the seed SIM and the cloud SIM. [*Id.*] If for some reason the device receives a cloud SIM that cannot use the current network, it does not attempt to connect to a different network. [*Id.*, ¶ 13.] Instead, the device will request a different cloud SIM from the back-end server. [*Id.*] The device will repeat this as necessary, trying different cloud SIMs until it finds one that is compatible with the network the seed SIM used. [*Id.*]

In the unlikely event that no cloud SIM can connect to the same network as the seed SIM, the device will disconnect from the network. [*Id.*] For example, if a redesign device connects to Cellular One's network, but is unable to find a cloud SIM compatible with Cellular One, it will disconnect from Cellular One's network, which means it will no longer be able to transmit data over that network. [*Id.*; SOMF ¶ 4] The device may subsequently connect to a different network of a different cellular service provider, such as T-Mobile's network, and it would then attempt to obtain a cloud SIM for use on that network. [SOMF ¶ 5.] In the very unlikely event that the device cannot find any cellular network that it can use for both the seed SIM and the cloud SIM, the device will be inoperable. [SOMF ¶ 7.]

#### **D. The Court's Prior Order Regarding the Redesign**

Following post-trial motions, the Court granted SIMO's request for injunctive relief. *SIMO I*, Docket 264. Subsequently, a dispute arose over whether uCloudlink's redesign products should be covered by the Court's injunction. After multiple rounds of briefing and expert



reports, this Court concluded that the injunction should not cover the redesign devices. Specifically, the Court wrote that it was “persuaded that uCloudlink’s redesigned products no longer infringe” because “uCloudlink has demonstrated through its expert testimony that its redesigned products never meet [the ‘distinct’] limitation because they never have a data communication link that is ‘distinct from’ the local cellular communication network.” *SIMO I*, Docket 299 at 2-3. The Court further stated that “SIMO has offered no plausible explanation for how, at least under the Court’s prior construction of SIMO’s patent, uCloudlink’s redesigned devices are infringing.” *Id.* at 5.

On December 26, 2019, SIMO filed a motion asking the Court to reconsider its decision. *SIMO I*, Docket 300. The Court denied that motion on January 22, 2020. *SIMO I*, Docket 304. SIMO also appealed the Court’s decision (*see SIMO I*, Docket 305), but SIMO subsequently withdrew that appeal.

### **III. LEGAL STANDARDS**

#### **A. Summary Judgment**

“Upon a motion for summary judgment, a district court must decide if the pleadings, depositions, answers to interrogatories, and admissions on file, together with the affidavits, if any, show that there is no genuine issue as to any material fact and that the moving party is entitled to a judgment as a matter of law.” *See CAE Screenplates, Inc. v. Heinrich Fiedler GmbH & Co. Kg*, 224 F.3d 1308, 1316 (Fed. Cir. 2000). To defeat summary judgment, “[t]he party opposing the motion must point to an evidentiary conflict created on the record at least by a counter statement of a fact or facts set forth in detail in an affidavit by a knowledgeable affiant. Mere denials or conclusory statements are insufficient.” *Barmag Barmer Maschinenfabrik AG v. Murata Machinery, Ltd.*, 731 F.2d 831, 836 (Fed. Cir. 1984).

## **B. Infringement**

To determine whether there is infringement, the Court must “compare the properly construed claims to the allegedly infringing devices.” *Pause Tech. LLC v. TiVo Inc.*, 419 F.3d 1326, 1335 (Fed. Cir. 2005). SIMO “must show that the accused device meets each claim limitation either literally or under the doctrine of equivalents.” *Id.* (internal citation omitted). SIMO bears the burden of proving infringement by a preponderance of the evidence. *See Bayer AG v. Elan Pharma. Res. Corp.*, 212 F.3d 1241, 1247 (Fed. Cir. 2000).

### **1. Literal Infringement**

“Literal infringement requires the patentee to prove that the accused device contains each limitation of the asserted claim(s). If any claim limitation is absent from the accused device, there is no literal infringement as a matter of law.” *Id.*, citing *Mas-Hamilton Grp. v. LaGard, Inc.*, 156 F.3d 1206, 1211 (Fed. Cir. 1998).

### **2. The Doctrine of Equivalents**

“If an asserted claim does not literally read on an accused product, infringement may still occur under the doctrine of equivalents if there is not a substantial difference between the limitations of the claim and the accused product.” *Bayer*, 212 F.3d 1250, citing *Warner-Jenkinson Co. v. Hilton Davis Chem. Co.*, 520 U.S. 17 (1997). A product infringes under the doctrine of equivalents if it performs substantially the same function as the claimed invention, in substantially the same way, to achieve substantially the same results. *See Conair Group, Inc. v. Automatik Apparate-Maschinenbau GmbH*, 944 F.2d 862, 866 (Fed. Cir. 1991). Another way to look at “equivalency” is to analyze whether or not two particular approaches are “interchangeable.” *See Warner-Jenkinson*, 520 U.S. at 25.

Infringement under the doctrine of equivalents is a question of fact. *See Lockheed Martin Corp. v. Space Systems/Loral, Inc.*, 249 F.3d 1314, 1323 (Fed. Cir. 2001). However, its

application is limited by various legal doctrines. *Id.* One legal limitation on the doctrine of equivalents is the “all-elements rule,” which “bars a patentee from asserting a theory of equivalence that would entirely vitiate a particular claim element.” *See Depuy Spine, Inc. v. Medtronic Sofamor Danek, Inc.*, 567 F.3d 1314, 1323 (Fed. Cir. 2009).

Additionally, when a patentee narrows its claims during prosecution in order to secure allowance, it cannot later broaden those claims via the doctrine of equivalents. *See Honeywell Int’l, Inc. v. Hamilton Sundstrand Corp.*, 370 F.3d 1131, 1139 (Fed. Cir. 2004). This is known as the doctrine of “prosecution history estoppel.” *Id.*, citing *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 733-34 (2002).

#### IV. ARGUMENT

##### A. All of the Claims Require Sending Authentication Information Over a Channel That is Distinct From the Local Cellular Network

This Court’s prior analysis of the “distinct” limitation focused on claim 8, because that was the only independent claim SIMO ultimately asserted in *SIMO I*. Yet importantly, all of the claims in SIMO’s ’689 patent include a similar limitation that requires sending authentication information over a “link” or “channel” that is “distinct from” or “not associated with” a local wireless carrier.<sup>2</sup>

Independent claim 1 and its dependent claims require “receiving a first request for authentication information” that is “transmitted over a data channel,” and sending back “authentication information” over the “data channel, wherein the data channel is **distinct** from [the] local wireless services of the local carrier.” [Ex. 1, Claim 1 (emphasis added).]

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<sup>2</sup> There are additional reasons why the redesign devices do not infringe. For the sake of simplicity, this motion focuses only on the “distinct”/“not associated with” limitations.

As noted above, independent claim 8 and its dependent claims similarly require establishing a “data communication link,” and making a “local authentication information request” “via the data communication link” “wherein the data communication link is **distinct** from the local cellular communication network.” [Ex. 1, Claim 8 (emphasis added).]

Independent claim 16 and its dependent claims require “receiving a first request for authentication information” that was “transmitted over a data channel,” and returning “authentication information ... via the data channel, wherein the data channel is **distinct** from wireless services of the local carrier.” [Ex. 1, Claim 16 (emphasis added).]

Finally, independent claim 19 and its dependent claims require “receiving a first request, via a data channel, for associating a subscriber identity module (SIM) with a mobile telecommunications device,” and “sending the authentication information to the mobile telecommunications device over the data channel, wherein the data channel is **not associated with** a local wireless service provided to the subscriber of the local carrier.” [Ex. 1, Claim 19 (emphasis added).]

The Court construed all of the “distinct”/“not associated” limitations similarly, holding that they require that the data channel/link is “**not using** the local cellular communication network.” *SIMO I*, Docket 60 at 2 (emphasis added).

#### **B. The Redesign Products Cannot Literally Infringe Because They Use the Same Network for Authentication and Local Communication**

There is no dispute regarding how the redesign products work. The redesign products will connect to a local cellular network (such as AT&T) on a roaming basis using an internal seed SIM. [Plaintiffs’ Rule 56 Statement of Material Facts (“SOMF”), ¶ 1.] The devices then send a request over the local cellular network to uCloudlink’s back-end servers to request a cloud SIM. [*Id.*] The back-end servers look to see what network the device used to request the cloud

SIM. [SOMF ¶¶ 2-3.] For example, if the request for the cloud SIM was sent over AT&T’s network, the uCloudlink back-end servers will return a cloud SIM compatible with AT&T. [*Id.*] Because the redesign devices used the same network (e.g., AT&T) to request authentication information and for general connectivity, they cannot satisfy the “distinct” limitations in claims 1-18, since those limitations require that the data link/channel is “**not using** the local cellular communication network.” [SOMF, ¶¶ 12-14.] Similarly, the redesign products cannot infringe claims 19 and 20 because those claims require using a data channel that is “not associated with” the local wireless carrier, whereas the redesign products use a network for the data channel that is associated with the local wireless carrier—indeed, they use the local wireless carrier’s own network (e.g., AT&T) for the data channel. [SOMF, ¶ 15.]

The above example describes a simple scenario where the uCloudlink back-end servers have a cloud SIM from the local cellular provider (e.g., AT&T). Sometimes, the accused devices will connect to a wireless network for which uCloudlink does not have a set of cloud SIMs provided by that wireless network, such as Cellular One. In this case, the uCloudlink servers will still return a cloud SIMs that is compatible with Cellular One’s network; for example, an AT&T or T-Mobile cloud SIM can access Cellular One’s network.<sup>3</sup> In this scenario, there is still no infringement. The redesign devices will roam on the Cellular One network using their internal seed SIM, and will request a cloud SIM from the uCloudlink servers that is compatible with the Cellular One network. [SOMF, ¶¶ 2-3.] The uCloudlink servers will return a cloud SIM that is compatible with Cellular One. [*Id.*] For example, they may return an AT&T or T-

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<sup>3</sup> See <https://www.cellularoneonline.com/fair-use-policy#:~:text=VisionOne%2FFree4Life&text=Currently%2C%20Cellular%20One%20has%20roaming,to%20the%20next%20billing%20cycle> (“Currently, Cellular One has roaming agreements with AT&T and T-Mobile”).

Mobile SIM card that can access Cellular One's network. The redesign device is not using two "distinct" networks because it is only connecting to and communicating with one network: Cellular One. Similarly, the Cellular One network is serving as both the "data channel" and the "local carrier," so the limitation of claim 19 requiring that the data channel is "not associated with" the local wireless carrier cannot be met.

Finally, it is theoretically possible that the uCloudlink back-end servers will not locate any cloud SIM that is compatible with the local wireless network. In this use case, the device will not connect using a cloud SIM; instead, the back-end servers will tell the device to disconnect the seed SIM from the current network, at which point the device can no longer communicate over that network. [SOMF, ¶ 4.] The redesign device may later connect its seed SIM to a new network, if one is available. In that case, the device will make sure that any cloud SIM it receives will connect to the same network, guaranteeing that the same network is used both for requesting the cloud SIM and for general connectivity. [SOMF, ¶ 5.]

uCloudlink's technical expert, Dr. James Olivier, has analyzed the source code for each of the accused products. [See The Expert Report and Declaration of James Olivier, Ph.D., filed herewith.] He confirmed that these products operate in the manner described above, and that this operation does not infringe any claim of the '689 patent. [*Id.*, ¶¶ 98-115.] Because there is no genuine dispute of any material fact, the Court should grant summary judgment of no infringement.

### **C. None of SIMO's Prior Arguments Change the Outcome**

In prior briefing, SIMO argued that the redesign devices infringe when they disconnect the seed SIM from a first network (e.g., AT&T) and then connect the seed SIM to a second network (e.g., T-Mobile). Specifically, SIMO contended that even though the redesign product has its seed SIM completely disconnect from the first network (AT&T) before re-connecting to a

new, different network (T-Mobile) and before obtaining any cloud SIM, there is still an infringement because, in SIMO's words, "there remains only one data communication link, and that data communication link uses multiple cellular communication networks, including at least one that is not *the* local cellular communication network." *SIMO I*, Docket 297 at 7 (emphasis original). Put another way, SIMO's argument was that the "data communication link" included *both* the prior, abandoned connection to the AT&T network *and* the new, active connection to the T-Mobile network. This argument fails, for multiple reasons.

First, focusing on the time period where the redesign product is connected to the first network in SIMO's scenario (AT&T), there can be no infringement because the redesign products do not relay the local authentication request and obtain local authentication information via that network. Authentication will only happen once the device disconnects from the first network (AT&T) and connects to a different network (T-Mobile). Specifically, the redesign products make sure the cloud SIM is compatible with the seed SIM network *before* authenticating. [SOMF, ¶ 2.] Consequently, because the authentication does not happen using the first, disconnected network, uCloudlink's connection to that first network (e.g., AT&T) cannot serve as the claimed "data channel" or "data communication link."

Second, focusing on the part of SIMO's theory where a redesign product is unable to obtain a compatible cloud SIM for the first network (AT&T) and then switches its seed SIM to a second network (T-Mobile), there is not *one* data communication link, there are *two separate links*. That is because the redesign product *disconnects* from the first network (e.g., AT&T) and then establishes a *new* connection with the separate second network (e.g., T-Mobile) using the seed SIM. [SOMF, ¶¶ 4-5.] The first data communication link is destroyed because the device can no longer transmit data over that network. [*Id.*, ¶ 4.] The seed SIM then creates a new data

communication link over the second network. [*Id.*, ¶ 5.] This *must* occur because the accused devices only have one cellular modem for the seed SIM, and that modem cannot connect to two networks simultaneously. [SOMF, ¶ 6.]

Importantly, SIMO’s argument that there is only one data link in this scenario contradicts the Court’s claim construction order in *SIMO I*. Specifically, this Court previously adopted the parties’ agreed-upon construction that a “data communication link” is a “communication link capable of transmitting data.” *SIMO I*, Docket 60 at 2. Neither party appealed this construction. Once a redesign device disconnects from the first network (e.g., AT&T), the communication link is destroyed and is no longer “capable of transmitting data.” [SOMF, ¶ 4.] In other words, it can no longer serve as the claimed “data communication link.” Indeed, as this Court previously observed, SIMO’s argument would lead to illogical results. For example, SIMO effectively argues that it should be able to draw a box around any connection a redesign product has ever made to any network at any point in the past, **whether or not that network connection still exists**, and SIMO considers these disconnected networks part of the claimed “data communication link.” Of course this is absurd—a “link” must be “capable of transmitting data,” as the Court expressly held. Abandoned links that are closed and disconnected cannot satisfy this claim limitation.

Third, even if this Court were to allow SIMO to include disconnected links as part of the claimed “data channel,” that channel is still not **distinct** from the local cellular communication network under the Court’s claim construction because the redesign products will use the **same** network for both obtaining a cloud SIM and for general Internet connectivity. Under SIMO’s theory, the “data communications link” or “data channel” is a combination of the old, disconnected AT&T network and the newly connected T-Mobile network. In this scenario, the



redesign product will use T-Mobile both for obtaining the cloud SIM and for general Internet connectivity, even if it also previously tried to use the old, disconnected AT&T network. In other words, the device “is using” T-Mobile both for the “data communications link” and the “local cellular network.” The Court, however, said that the term “the data communication link is distinct from the local cellular communication network” in the asserted claims means “the data communication link is **not using** the local cellular communication network.” [*SIMO I*, Docket 60 at 2 (emphasis added).] Since the redesign devices are using the same network both to obtain the cloud SIM and for general connectivity, they cannot infringe. Similarly, since the redesign devices are using a data channel “associated with” the local wireless carrier (e.g., T-Mobile) both for obtaining a cloud SIM and for general connectivity, they cannot satisfy the “not associated with” limitation.

*SIMO* previously attempted to avoid a finding of non-infringement by taking two incredible positions. First, *SIMO* argued that “[a]t the time the ‘relaying...’ limitation must be met, there is no longer a requirement in the claim that the data communication link be distinct from the local cellular communication network.” [*SIMO I*, Docket 297 at 5.] This is incorrect. The Court did not include any temporal limit on the “distinct from” limitation in its claim construction in *SIMO I*, and there is no such limitation in the claims themselves. Effectively *SIMO* asks the Court to read the “distinct” limitation out of the claims, which is improper. *See Pause Tech. LLC v. TiVo Inc.*, 419 F.3d 1326, 1334 (Fed. Cir. 2005) (“[W]e must give each claim term the respect that it is due.”).

Second, *SIMO* argued:

[T]he relevant question is *only* whether the “data communication link” exclusively uses “the local cellular communication network.” If the data communication link does not *exclusively* use the local cellular communication network, then the device is capable of operating according to the claims . . . .

*SIMO I*, Docket 297 at 6 (emphasis original). The Court did not construe “distinct from” as meaning “does not *exclusively* use” the local cellular communication network. SIMO pulls the “exclusively” limitation out of thin air, and such a construction has no support in the ’689 patent’s specification. What the claims require is that the “link” or “channel” used to retrieve the cloud SIM be “distinct from” or “not associated with” the local wireless carrier. Since the redesign products use the *same* network for retrieving the cloud SIM and for connectivity using the cloud SIM, they can never satisfy this limitation.

In *SIMO I*, this Court rejected SIMO’s arguments, and it should do so again here. Because SIMO has no valid argument that the redesign products satisfy all limitations of the claims of the ’689 patent, summary judgment of no infringement is appropriate.

#### **D. The Redesign Products Cannot Infringe Under the Doctrine of Equivalents**

SIMO has suggested in prior briefing that it may argue uCloudlink infringes the ’689 patent under the doctrine of equivalents. That doctrine, however, is subject to various legal limitations, two of which are applicable here. First, because SIMO added the “distinct” and “not associated with” limitations in order to overcome prior art rejections during prosecution, the doctrine of prosecution history estoppel bars SIMO from seeking to expand these limitations now using the doctrine of equivalents. Second, SIMO’s application of the doctrine of equivalents is improper because it would vitiate the “distinct”/“not associated with” limitations.

##### **1. Prosecution History Estoppel Bars Use of the Doctrine of Equivalents for the “Distinct”/“Not Associated With” Limitations**

The doctrine of prosecution history estoppel will “bar the patentee from asserting equivalents if the scope of the claims has been narrowed by amendment during prosecution.” *Honeywell*, 370 F.3d at 1139. “A patentee’s decision to narrow his claims through amendment

may be presumed to be a general disclaimer of the territory between the original claim and the amended claim.” *Festo*, 535 U.S. at 740.

Here, SIMO amended its claims during prosecution to add the “distinct” limitations in order to overcome a prior art rejection, triggering prosecution history estoppel. Specifically, in an office action dated August 22, 2013, the Patent Office rejected all then-pending claims as obvious in light of four prior art references. [SOMF, ¶ 16.] In response, SIMO added a limitation to then-pending claims 1 and 2<sup>4</sup> that the “data channel is not associated with the local carrier.” [*Id.*] SIMO pointed to this new limitation in an attempt to overcome the prior art. [*Id.*] The examiner again rejected SIMO’s claims, adding a fifth reference. [SOMF, ¶ 17.] To overcome this rejection, SIMO again amended its claims, replacing “not associated with” in claims 1 and 2 with “distinct,” and adding a similar limitation to pending claim 11 (which issued as claim 16). [*Id.*] SIMO also included a “not associated” limitation in claim 19. [*Id.*] SIMO once again used these limitations to argue its claims were patentable. [*Id.*] SIMO would repeatedly return to these limitations throughout prosecution, arguing time and again that these limitations made its claims different from the prior art. [SOMF, ¶ 18.]

SIMO may attempt to argue that other changes were also required to secure the allowance of its claims, but that is irrelevant. “The fact that the first amendment did not succeed and that a further amendment was required to place the claim in allowable form...is of no consequence as to the estoppel. It is the patentee’s response to a rejection—not the examiner’s ultimate allowance of a claim—that gives rise to prosecution history estoppel.” *See Felix v. Am. Honda Motor Co.*, 562 F.3d 1167, 1182-83 (Fed. Cir. 2009). Here, because SIMO added the “distinct” and “not associated” limitations in order to overcome prior art during prosecution, it is barred

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<sup>4</sup> Claim 2 was later renumbered as claim 8 upon issuance.

from relying on the doctrine of equivalents to show that uCloudlink's redesign products infringe these limitations. *See id.* at 1184.

## 2. Vitiating Bars Use of the Doctrine of Equivalents

"[T]he doctrine of equivalents must not expand to eliminate a claim element entirely." *See Planet Bingo, LLC v. GameTech Int'l, Inc.*, 472 F.3d 1338, 1344 (Fed. Cir. 2006). In *Planet Bingo*, the Federal Circuit held that a claim that required a "predetermined" combination—i.e., a combination determined before a game started—could not read onto a system that determined the combination after the game started. *See id.* at 1345. It noted that "after is opposite of before, not equivalent." *See id.* at 1344. Similarly, in *Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 843 F.3d 1315, 1344 (Fed. Cir. 2016), the claims required two "distinct" feedback signals, but the accused products used only a single feedback signal. The Federal Circuit found use of the doctrine of equivalents would vitiate the claim requirement that the signals must be "distinct." *Id.*

The claims here are virtually identical to the claims in *Power Integrations* in that they require two distinct networks. In *Power Integrations*, the Federal Circuit noted that two signals are "either distinct or they aren't." *Id.* Here, two wireless networks are either distinct or they aren't. The only way SIMO can argue infringement under the doctrine of equivalents is by removing the "distinct"/"not associated with" limitations, which is improper. Because uCloudlink's redesign products use an approach that is the opposite from what is claimed in the '689 patent, they cannot infringe under the doctrine of equivalents, making summary judgment appropriate.

**V. CONCLUSION**

For the foregoing reasons, the Court should grant summary judgment that the uCloudlink redesign products do not infringe the '689 patent, either literally or under the doctrine of equivalents.

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